

PRECIPITATED SILICIC ACID, ITS PRODUCTION AND RUBBER MIXTURE AND VULCANIZED RUBBER CONTAINING THAT

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Abstract of JP 2000072434 (A)

PROBLEM TO BE SOLVED: To provide precipitated silicic acid which can be used as a filler in a rubber mixture and especially when used in a tire, can significantly decrease the rolling resistance of the tire due to its easy dispersibility and to provide its producing method. **SOLUTION:** This precipitated silicic acid has 0.2 to 5.0 wt.% Al₂O₃ content and <3.4 wk ratio. The precipitated silicic acid is produced by allowing alkali metal silicate the react with mineral acid and an aluminum salt soln. in an aq. environment at 60 to 95 deg.C and 7.0 to 10.0 pH, continuing the reaction till 40 to 110 g/1 solid density, controlling the pH to 3 to 5 and then, post-treating the obtd. precipitated silicic acid by a well-known method.

BET-Oberfläche	80 - 180 m ² /g
CTAB-Oberfläche	80 - 139 m ² /g
Verhältnis BET/CTAB	1,0 - 1,6
Searszahl (Verbrauch 0,1 n NaOH)	5 - 25 ml
DBP-Zahl	200 - 300 ml/100 g
Al ₂ O ₃ -Gehalt	< 5 %
wk-Koeffizient	< 3,4
abgebaute Partikel	< 1,0 µm
nicht abbaubare Partikel	1,0 - 100 µm

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